

APPENDIX 5-F

FORMAT FOR CORRECTIVE ACTION PLAN

Page

Cover Page

- A. DOH UST facility ID number
- B. Facility name and address
- C. Date report prepared
- D. Name, address, and telephone number of person/company preparing report

Table of Contents

1. Executive Summary

- A. A summary of the facility history, extent and type of release, proposed corrective action technology, and proposed implementation of the proposed measure.

2. Introduction/Purpose

- A. Give brief summary of facility and UST release history.
- B. Give brief description of previous site investigations and release response activities.
- C. State the scope of the report and how it is to be utilized with respect to release response activities at the site (i.e. removal of gross soil contamination, residual groundwater contamination).

3. Site Description/Condition

- A. Describe site location and surrounding areas, including nearby surface water bodies and groundwater wells. Include site map.
- B. Describe current and future uses, as well as, quality of nearby surface water and groundwater.

- ___ C. Discuss regional and site geology and hydrogeology.
- ___ D. Provide summary of previous site investigations and release response activities. Include map showing locations of borings, wells, soil gas points, etc.
- ___ E. Provide tabular summary of analytical results (laboratory reports are not necessary if submitted earlier). Include risk-based target cleanup levels for each contaminant and each impacted media.
- ___ F. Reference any previously submitted reports that contain the determination of risk-based target cleanup levels, other than DOH Tier 1 action levels.
- ___ G. Describe full vertical and horizontal extent of contamination and contaminant concentrations in various media. Provide estimates of volume of impacted soil and groundwater.
- ___ H. Discuss areas targeted for remediation.

4. Physical and Chemical Characteristics of the Contaminants

- ___ A. Identify the contaminants present at the site and provide the maximum concentrations in soil and groundwater.
- ___ B. Describe the contaminant's properties affecting fate and transport, such as water solubility, vapor pressure, Henry's Law Constant, density, octanol/water partition coefficient, and organic carbon partition coefficient.
- ___ C. Describe the contaminant's toxicity characteristics.

5. Exposure Assessment (Refer to Appendix 5-G for additional guidance)

- ___ A. Identify the presence of existing and potential exposure pathways and receptors at the site and surrounding areas without consideration of natural or engineered controls.
- ___ B. Summarize all identified exposure pathways and provide rationale for elimination of any of the existing pathways as being of concern to human health and the environment.
- ___ C. Identify the effects of the proposed remedial action on existing and potential pathways and receptors. Provide estimation on the effectiveness of the proposed remedial action.
- ___ D. Identify potential exposure pathways and receptors during proposed remedial activities. Discuss measures taken to eliminate and/or reduce exposure.

6. Corrective Action Proposal

- ___ A. Discuss technology(ies) proposed for remediation of impacted media.
- ___ B. Describe selection criteria for choosing the proposed method over other potential remedial options. Address technical merit, ability to be implemented given site conditions and contaminants present, economic and temporal feasibility, and immediate/future beneficial results.
- ___ C. Include the estimated cumulative mass of contaminants to be removed. Include all calculations and methodology used to obtain this estimate.
- ___ D. Include the estimated time to achieve the cleanup to target levels utilizing the proposed technology. Include all calculations and methodology used to obtain this estimate. Discuss whether the remediation target levels are the same as the cleanup action levels for the site. If the target levels differ, explain additional measures proposed to achieve the cleanup action levels for the site.

7. Remedial System Design and Implementation

- ___ A. Describe the proposed remedial system and any experience using this type of system at a similar site.
- ___ B. Provide a remedial system layout on a base site map and plan view schematic.
- ___ C. Provide design drawings and specifications of the system.
- ___ D. If applicable, describe estimated radius of influence(s) and/or groundwater capture zone(s) overlain on a contaminant concentration map of the contaminant with the highest degree of cleanup required.
- ___ E. Describe operating conditions, including weather concerns, access problems/agreements, building constraints.
- ___ F. If applicable, describe any air discharge treatment system that will be used. Discuss the length of operation and if a change in treatment technology will be required with changes in influent concentrations.
- ___ G. Discuss waste disposal considerations, including type of waste, estimated quantity of waste, estimated frequency of disposal, and final disposition of waste. Include approvals from accepting facilities.

- ___ H. Discuss any permits or approvals that will be necessary to implement the remedial system. Identify the agencies involved and any sampling and/or monitoring requirements associated with the permit/approval. Include copies of the permits/approvals already obtained. If not yet obtained, provide status of such permit/approval.
- ___ I. Discuss a contingency plan or alternative approach that will be performed in the event that the proposed remedial system is not effective once implemented.
- ___ J. Include an implementation schedule that includes estimated dates for permit approval, system installation, startup, etc.

8. Operation, Monitoring, and Performance Plan

- ___ A. Describe system installation and startup monitoring.
- ___ B. Describe system operation, maintenance and monitoring requirements and frequency.
- ___ C. Describe any maintenance and monitoring requirements for controls implemented to control exposure to potential receptors during remedial activities.
- ___ D. Describe location of sampling points, monitoring parameters, and frequency to determine the performance of the remedial system. Also, discuss the laboratory analyses that will be conducted.

9. Closure Plan

- ___ A. Describe the procedures that will be used to determine when system operation can be discontinued and a plan for returning the system to service if contaminant levels increase or the remaining contaminants threaten human health, safety or the environment.
- ___ B. Discuss the procedures for decommissioning the system and returning the site to original conditions once closure is granted by DOH.
- ___ C. Discuss the number, depth and location of confirmation samples that will be taken. Also discuss the laboratory analyses that will be conducted.